CGIAR Research Program on
Climate Change, Agriculture and Food Security (CCAFS)

Details of what a Research Protocol should contain

Video Transcript

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These materials were produced for and with funding from the Climate Change Agriculture and Food Security Research Program of the Consultative Group on International Agricultural Research (CGIAR).

What should a Protocol include?

Protocols can take on any format, although your institution may have its own preferred layout. In general they should contain the following sections:

- An Abstract
- A Title
- Version information: This is particularly important as a protocol should be a plan of how an activity should be conducted which is then updated to incorporate any deviations to reflect what actually happened.
  A table such as this can be included in the protocol to keep track of changes and updates made to the document.

Version Number	Update Details
1.0	Original draft
2.0	Updated to include comments from reviewers (scientist/s: name/s, statistician/s: name/s)
3.0	Updated to remove location X, no longer safe to work in that area
3.1	Updated team members name and contact detailed due to change in project management
…	…

  A form of common version numbering is that large updates to the document can be reflected as increases in the version number to the left of the decimal point. Small changes can be reflected as an increase in the version number to the right of the decimal point.

- General location information
- Investigators - this should include names, institutions and it's useful to have their area of expertise.
- Background and justification: This section of the protocol should specify:
  - What the problem is?
  - How will your research address the problem?
  - What are the next steps expected to be after this activity?
  - Who are or what is the target group and how was this group identified?
  - Who will feel the impact of your research?

  A lot of the detail required in the background and justification section can be lifted from the project proposal.

You should include:

- A literature review
- Details of how this activity contributes to the project's aims and objectives, as well as links with the other activities within the project.
- Hypotheses – statements about what you expect to see from the results of your activity.

- Potential impact – who will benefit, how and by how much, will the benefits be sustainable, are there any negative effects to take into consideration?
- Activity objectives – these should be detailed, consistent and achievable through the activity.
- Methods – ensure this section has enough detail so that at the planning stage colleagues can review and comment on how the activity is to be carried out, and also to leave no doubts in other team members' and technicians' minds as to what they should be doing whilst conducting the activity. This section generally contains the following:
    - Type of research activity: experiment, survey, or observational
    - A timeline for the activity
    - Specific location information including how the locations are to be / were selected
    - Study units – households, fields, farmers, again detailing how they are to be / were selected.
    - Interventions: such as treatments or specific conditions set up by the research activity to observe their results.
    - Inputs – this should include 'materials' required for the activity, these could be fertiliser, seeds, or translated questionnaires.
    - Management – detail who is responsible for which part of the activity.
    - Data collection – which are the key response variables for the activity, how are they to be measured and by whom (farmer or technician?), measurement units, ensure that there are unique identifier variables.
    - Data management – detailing who will be responsible.
- Analysis, reporting and feedback – this should include a descriptions of the methods to be used to analyse the data including weight information for the key variables of interest, it should also include details of how the results will be fed back to those who participated in the activity.
- Implementation plan – including tasks, lists of partners and their roles, budget information
- References

A transcript of this video is available within the Data Management Support Pack which lists the required sections of a protocol.

For a more detailed explanation of what should be included in each of these sections please refer to the appendix in 'Good Statistical Practice for Natural Resources Research' 2004 by Stern, Coe, Allan and Dale, or section 2 of 'Writing research protocols: a statistical perspective' 2006 by Wilson and Abeyasekera.

Appendix I – CCAFS Data Management Support Pack

This document is part of the CCAFS Data Management Support Pack produced by the Statistical Services Centre, University of Reading, UK. The following materials are available in the pack:

0. Data Management Strategy
    a. CCAFS Data Management Strategy
1. Research Protocols
    a. Writing Research Protocols – a statistical perspective
    b. Preparation of Research Protocols – Good Practice Case Study
    c. What is a Research Protocol, and how to use one (Video & Transcript)
    d. Details of what a Research Protocol should contain (Video & Transcript)
2. Data Management Policies & Plans
    a. Creating a Data Management Plan
    b. Data Management Plan (Video & Transcript)
    c. Example Data Management Activity Plan
    d. Example Consent Form
3. Budgeting & Planning
    a. Budgeting & Planning for Data Management
    b. ToR Data Support Staff
    c. Budgeting & Planning (Video & Transcript)
4. Data Ownership
    a. Data Ownership and Authorship
    b. Template – Data Ownership Agreement
    c. CCAFS Data Ownership & Sharing Agreement
    d. Data Ownership & Authorship (Video & Transcript)
5. Data & Document Storage
    a. Creating and Using a DDS
    b. DDS Introduction – (Video & Transcript)
    c. DDS Organisation – (Video & Transcript)
    d. DDS Ownership – (Video & Transcript)
    e. Introduction to Dropbox – (Video & Transcript)
6. Archiving & Sharing
    a. Archiving & Sharing Data
    b. Data and Documents to Submit for Archiving – a checklist
    c. MetaData
    d. Archiving & Sharing (Video & Transcript)
    e. Metadata (Video & Transcript)
    f. CCAFS HBS Questionnaire
    g. CCAFS HHS Code Book
    h. CCAFS Training Manual for Field Supervisors

7. CCAFS Data Portals
    a. Portals for CCAFS Outputs
    b. AgTrials Summary
    c. CCAFS-Climate Summary
    d. DSpace Introduction
    e. Introduction to Dataverse (Video & Transcript)
    f. Creating a Dataverse (Video & Transcript)
    g. Dataverse Study Catalogue
    h. CCAFS Dataverse (Video & Transcript)
8. Data Quality & Organisation
    a. Data Quality Assurance
    b. Guidance for handling different types of Data
    c. Transition from Raw to Primary Data
    d. Data Quality Assurance (Video & Transcript)
    e. Guidance for handling different types of data (Video & Transcript)
    f. Transition from Raw to Primary Data (Video & Transcript)